

Status Of the Claims

Claims 4-28 are pending in the application and stand rejected.

Rejections Under 35 USC §103(a) Over Soma and Soma in View of JP '913

Claims 4-11 and 24-28 are rejected under 35 USC §103(a) as being obvious over Soma (USP 5,411,767). Claims 4-28 are rejected under 35 USC §103(a) as being obvious over JP '913 (JP 8-50913) in view of Soma. Applicants traverse these rejections and respectfully request reconsideration and withdrawal thereof.

Distinctions of the invention over Soma and JP '913 have been presented in previous responses. The Examiner admits that JP '913 fails to teach the material of the interconnector and relies upon the teachings of Soma for the material of the interconnection in making both of his rejections.

The present invention pertains to a solid electrolyte fuel battery that has an interconnector made from a sintered or co-sintered material. In contrast, Soma pertains to a method for producing an interconnector for producing a solid electrolyte type fuel cell that utilizes thermal spraying technology. Soma fails to teach or suggest a sintered or co-sintered interconnector.

On page 6, lines 1-2 of the Office Action, the Examiner turns to *Merriam-Webster's Collegiate Dictionary* to assert that

"'sinter' is to 'cause to become a coherent mass by heating without melting.'"

However, different dictionaries can have a different definition. For example, *Webster's Encyclopedic Unabridged Dictionary of the English Language* (Random House, 1996) provides relevant definitions of "sinter" as being "the product of a sintering operation" or "to bring about agglomeration (in metal particles) by heating." Also, an Applicant can be his own lexicographer. See, e.g., *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Further, "during patent prosecution when claims can be amended, ambiguity should be recognized, scope and breath of language explored and clarification imposed." *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1323 (Fed. Cir. 1989). As a result, the Applicants have clearly provided clarification of the language to show that the thermally sprayed material of Soma is fundamentally different from the sintered or co-sintered material of the invention.

At page 3, lines 18-21 of the Office Action the Examiner states, "Additionally, regarding the 'co-sintered' and 'integrally burned' limitations of the claims, these limitations are not considered to patentably distinguish over the Soma reference. These limitations are essentially process limitations, and therefore allow the claims to be interpreted as product-by-process claims". By this, the Examiner appears to believe that a sintered material is just a material that has just gone through a process step and does not represent a physical state. However, sintered materials can be readily discerned by fused

particles observable in SEM (scanning electron microscope) photomicrographs that can be found for example on the Internet at www.Osmonics.com/products/page764.htm or www.avxcorp.com/docs/technoinf/bscant.pdf.

Further, as evidence of the fundamental difference between the sintered or co-sintered material of the invention and the thermally sprayed material of Soma, please find attached a Declaration Under 37 CFR §1.132 by Toshiro Nishi, which clearly shows unexpected results. In the Declaration, SEM photomicrographs are presented that compare the thermally sprayed material with co-sintered material. In the plasma spraying technology, the resultant material has a number of air spaces produced in the plasma-sprayed film having a thickness of from several to dozens of microns. In contrast, the co-sintered materials of the invention have very small air spaces, on the order of submicrons. The result is that the inventive interconnector has a desirable densified structure. These unexpected results demonstrate the clear advantages of the invention.

As has been shown, Soma or Soma combined with JP '913 would fail to motivate a person having ordinary skill in the art to produce a claimed embodiment of the invention. Thus, a *prima facie* case of obviousness has not been made. Further, unexpected results

clearly demonstrate the invention's superiority. Accordingly, this rejection is overcome and withdrawal thereof indicated.

CONCLUSION

The Examiner is respectfully requested to enter this Reply After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Reply After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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